

Lesson 1- 5

Lifting and Moving Patients

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level

2 = Application level

3 = Problem-solving level

Cognitive Objectives

At the completion of this lesson, the CFR student will be able to:

- 1-5.1 Define body mechanics. (C-1)
- 1-5.2 Discuss the guidelines and safety precautions that need to be followed when lifting a patient. (C-1)
- 1-5.3 Describe the indications for an emergency (urgent) move. (C-1)
- 1-5.4 Describe the indications for assisting in non-urgent moves. (C-1)
- 1-5.5 Describe the various lifting and moving devices associated with moving a patient in the out-of-hospital arena. (C-1)

Affective Objectives

At the completion of this lesson, the CFR student will be able to:

- 1-5.6 Explain the rationale for properly lifting and moving patients. (A-3)
- 1-5.7 Explain the rationale for an emergency (urgent) move. (A-3)

Psychomotor Objectives

- 1-5.8 Demonstrate an emergency (urgent) move. (P-1,2)
- 1-5.9 Demonstrate a non-urgent move. (P-1,2)
- 1-5.10 Demonstrate the use of equipment utilized to move patient's in the out-of-hospital arena. (P-1,2)

Preparation

Motivation:

Many CFRs are injured every year because they attempt to lift or move patients improperly.

Prerequisites:

None

Materials

AV Equipment:

Utilize various audio-visual materials relating to emergency medical care. The continuous development of new audio-visual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to ensure that the objectives of the curriculum are met.

EMS Equipment:

Wheeled stretcher, stair chair, scoop stretcher, flexible stretcher, long and short backboards, bed, straps and blankets.

Personnel

Primary Instructor:

One EMT-B Instructor knowledgeable in the principles and techniques of lifting and moving patients.

Assistant Instructor:

The instructor-to-student ratio should be 1:6 for psychomotor skills practice. Individuals used as assistant instructors should be knowledgeable about lifting and moving patients.

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

- I. Role of the CFR
 - A. Moving patients that are in immediate danger
 - B. Position patients to prevent further injury
 - C. Assist other EMS responders in lifting and moving

- II. Body Mechanics/Lifting Techniques
 - A. Safety precautions
 1. Use legs, not back, to lift.
 2. Keep weight as close to body as possible.
 - B. Guidelines for lifting
 1. Consider weight of patient and the need for help.
 2. Know physical ability and limitations.
 3. Lift without twisting.
 4. Have feet positioned properly.
 5. Communicate clearly and frequently with partner and other EMS providers.
 - C. Work with the EMS system in your area to practice the guidelines and use of equipment.

- III. Principles of Moving Patients
 - A. General considerations
 1. In general, a patient should be moved immediately (emergency (urgent) move) only when:
 - a. There is an immediate danger to the patient if not moved.
 - (1) Fire or danger of fire.
 - (2) Explosives or danger of explosion
 - (3) Inability to protect the patient from other hazards at the scene.
 - (4) Inability to gain access to other patients in a vehicle who need life-saving care.
 - b. Life-saving care cannot be given because of the patient's location or position, e.g., a cardiac arrest patient sitting in a chair or lying on a bed.
 2. If there is no threat to life, the patient when ready for transportation should be moved by the EMS crew.
 - B. Emergency (Urgent) moves
 1. The greatest danger in moving a patient quickly is the possibility of aggravating a spine injury.
 2. In an emergency, every effort should be made to pull the patient in the direction of the long axis of the body to provide as much protection to the spine as possible.

3. It is impossible to remove a patient from a vehicle quickly and at the same time provide much protection to the spine.
 4. If the patient is on the floor or ground, he can be moved by:
 - a. Pulling on the patient's clothing in the neck and shoulder area.
 - b. Putting the patient on a blanket and dragging the blanket.
 - c. Putting the CFR's hands under the patient's armpits (from the back), grasping the patient's forearms and dragging the patient.
 - d. Never pull the patient's head away from the neck and shoulders.
- C. Non-urgent moves - performed with other responders
1. Direct ground lift (no suspected spine injury)
 - a. Two or three rescuers line up on one side of the patient.
 - b. Rescuers kneel on one knee (preferably the same for all rescuers).
 - c. The patient's arms are placed on his/her chest if possible.
 - d. The rescuer at the head places one arm under the patient's neck and shoulder and cradles the patient's head. The rescuer places his/her other arm under the patient's lower back.
 - e. The second rescuer places one arm under the patient's knees and one arm above the buttocks.
 - f. If a third rescuer is available, he should place both arms under the waist and the other two rescuers slide their arms either up to the mid-back or down to the buttocks as appropriate.
 - g. On signal, the rescuers lift the patient to their knees and roll the patient in toward their chests.
 - h. On signal, the rescuers stand and move the patient to the stretcher.
 - i. To lower the patient, the steps are reversed.
 2. Extremity lift (no suspected extremity injuries)
 - a. One rescuer kneels at the patient's head and one kneels at the patient's side by the knees.
 - b. The rescuer at the head places one hand under each of the patient's shoulders while the rescuer at the foot grasps the patient's wrists.
 - c. The rescuer at the head slips his/her hands under the patient's arms and grasps the patient's wrists.
 - d. The rescuer at the patient's foot slips his/her hands under the patient's knees.
 - e. Both rescuers move up to a crouching position.

- f. The rescuers stand up simultaneously and move with the patient to a stretcher.
- 3. Transfer of supine patient from bed to stretcher
 - a. Direct carry
 - (1) Position cot perpendicular to bed with head end of cot at foot of bed.
 - (2) Prepare cot by unbuckling straps and removing other items.
 - (3) Both rescuers stand between bed and stretcher, facing patient.
 - (4) First rescuer slides arm under patient's neck and cups patient's shoulder.
 - (5) Second rescuer slides hand under hip and lifts slightly.
 - (6) First rescuer slides other arm under patient's back.
 - (7) Second rescuer places arms underneath hips and calves.
 - (8) Rescuers slide patient to edge of bed.
 - (9) Patient is lifted/curled toward the rescuers' chests.
 - (10) Rescuers rotate and place patient gently onto cot.
 - b. Draw sheet method
 - (1) Loosen bottom sheet of bed.
 - (2) Position cot next to bed.
 - (3) Prepare cot: Adjust height, lower rails, unbuckle straps.
 - (4) Reach across cot and grasp sheet firmly at patient's head, chest, hips and knees.
 - (5) Slide patient gently onto cot.
- D. Patient positioning
 - 1. An unresponsive patient without trauma should be moved into the recovery position by rolling the patient onto his/her side (preferably the left).
 - 2. A patient with trauma should not be moved until additional EMS resources can evaluate and stabilize the patient.
 - 3. A patient experiencing pain or discomfort or difficulty breathing should be allowed to assume a position of comfort.
 - 4. A patient who is nauseated or vomiting should be allowed to remain in a position of comfort; however, the CFR should be positioned appropriately to manage the airway.
- IV. Equipment familiarity
 - A. The CFR should be familiar with equipment used in the local EMS system
 - B. Typical equipment used in EMS Systems
 - 1. Stretchers/cots
 - 2. Portable stretcher
 - 3. Stair chair

4. Backboards
 - a. Long
 - b. Short
5. Scoop or orthopedic stretcher

Application

Procedural (How)

1. Show examples of situations where emergency moves are appropriate.
2. Demonstrate emergency moves.
3. Demonstrate positioning patients with different conditions.
 - A. Unresponsiveness
 - B. Chest pain/discomfort or difficulty breathing
 - C. Patients who are vomiting or nauseated

Contextual (When, Where, Why)

When to move a patient is determined by both the patient's condition and the environment in which he/she is found. The determination of how to move the patient is made by considering the complaint, the severity of the condition and the location.

Student Activities

Auditory (Hearing)

1. The student should hear instructor explanations of body mechanics.
2. The student should hear the principles of lifting and moving.
3. The student should hear the indications for emergency (urgent) moves.

Visual (Seeing)

1. The student should see situations where emergency (urgent) moves are appropriate.
2. The student should see emergency (urgent) moves.
3. The student should see non-urgent moves.
4. The student should see various lifting and moving devices.
5. The student should see patients with different conditions positioned properly.
 - A. Unresponsiveness
 - B. Chest pain/discomfort or difficulty breathing
 - C. Patients who are vomiting or nauseated
6. Students should see patients moved with various lifting and moving devices.

Kinesthetic (Doing)

1. The student should practice determining whether emergency (urgent) or non-urgent moves are appropriate.
2. The student should practice emergency (urgent) moves.
3. The student should practice non-urgent moves.
4. The student should practice positioning patients with different conditions.
 - A. Unresponsiveness
 - B. Chest pain/discomfort or difficulty breathing
 - C. Patients who are vomiting or nauseated
5. The student should practice using equipment for lifting and moving patients.

Instructor Activities

Facilitate discussion and supervise practice.

Reinforce student progress in cognitive, affective, and psychomotor domains.

Redirect students having difficulty with content (complete remediation form)

Evaluation

Practical:

Evaluate the actions of the CFR students during role play, practice or other skill stations to determine their compliance with the cognitive and affective objectives and their mastery of the psychomotor objectives of this lesson.

Written:

Develop evaluation instruments, e.g., quizzes, oral reviews, and handouts, to determine if the students have met the cognitive and affective objectives of this lesson.

Remediation

Identify students or groups of students who are having difficulty with this subject content. Complete remediation sheet from the instructor's course guide.

Enrichment

What is unique in the local area concerning this topic? Complete enrichment sheets from instructor's course guide and attach with lesson plan.

